PROJECT DESCRIPTION

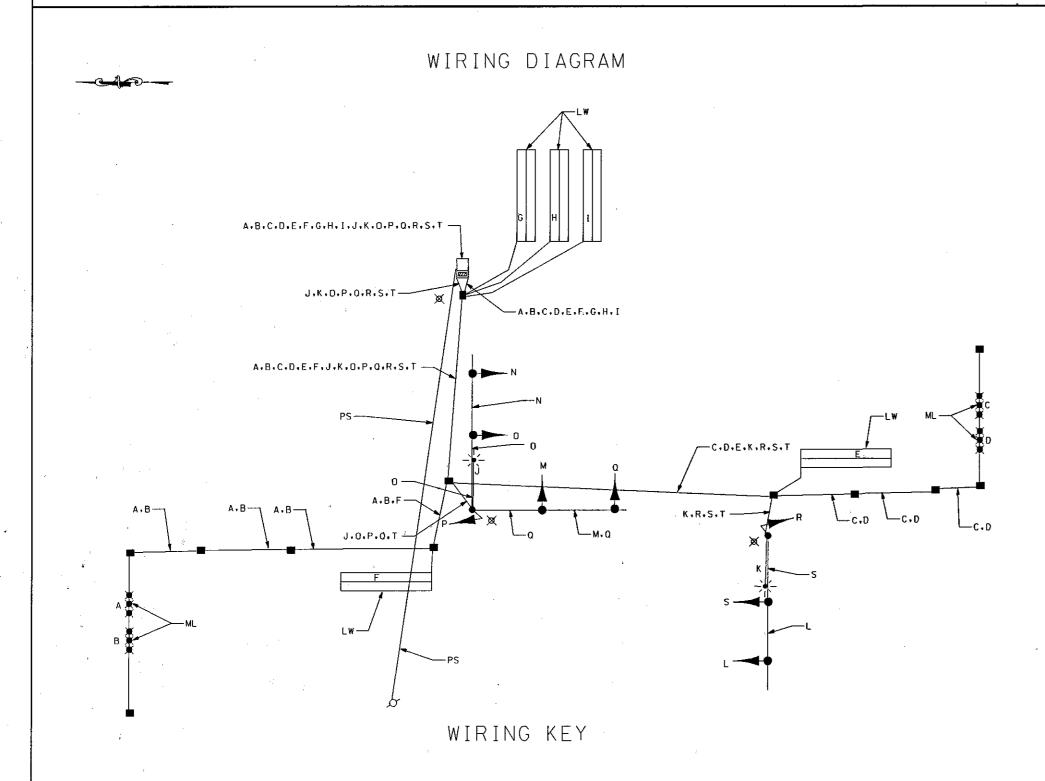
THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION US 301 AND SHINING WILLOW WAY IN CHARLES COUNTY. US 301 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

AN EIGHT-PHASE, FULLY ACTUATED NEMA CONTROLLER AND THREE 4-CHANNEL TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER HOUSED IN A BASE MOUNTED CABINET WILL BE INSTALLED AT THE INTERSECTION. THE CONTROLLER WILL OPERATE AS A FIVE-PHASE FULL-TRAFFIC-ACTUATED CONTROLLER WITH AN EXCLUSIVE-PERMISSIVE LEFT TURN PHASE FOR SOUTHBOUND US 301 AND AN EXCLUSIVE-PERMISSIVE U-TURN PHASE FOR NORTHBOUND US 301.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.



- A-D MICRO-LOOP PROBE
- E-I 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED
- J-K 2 CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
- L-N 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- (NO. 14 A.W.G.) STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

O-S 7 CONDUCTOR ELECTRICAL CABLE

- PS PROPOSED ELECTRICAL SERVICE
- LW LOOP WIRE (NO. 14 A.W.G.) ML MICRO-LOOP PROBE

PHASE CHART PHASE 1 & 5 $\left|\begin{array}{c} R \\ \end{array}\right|$ | G | R | R $R \mid R \mid R \mid_{\sim V} G$ 4 CHANGE R | R | R | R | R | Y | Y FL/Y | FL/Y | FL/Y | FL/Y | FL/Y | FL/R | FL/R | OPERATION

EQUIPMENT LIST "A"

A. APPROVED SHA EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

TEM NO.	QUANTITY	DESCRIPTION
NONE		

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

MR. LARRY ELLIOTT ASSISTANT DISTRICT ENGINEER - TRAFFIC (410) 841-1003

MR. CHARLES GEORGE ASSISTANT DISTRICT ENGINEER - MAINTENANCE (410) 841-1002

MR. JOHN MAYS ASSISTANT DISTRICT ENGINEER - UTILITIES (410) 841-1005

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR. CHIEF, TRAFFIC OPERATIONS (410) 787-7630

MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS (410) 787-7676

MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF. TRAFFIC OPERATIONS (410) 787-7631

MS. DARLENE EIDE SUPPLY OFFICE SIGNAL SHOP WAREHOUSE (410) 787-7668

MR. ED RODENHIZER TEAM LEADER SIGNAL OPERATIONS (410) 787-7652

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO OOTS FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2002	3 EA	TEST PIT EXCAVATION
5001	4 EA	FURNISH AND INSTALL WHITE HEAT APPLIED PERMANENT
		THERMOPLASTIC PAVEMENT MARKING ARROW
5005	155 LF	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED PERMANENT
		THERMOPLASTIC PAVEMENT MARKING
5006	50 LF	FURNISH AND INSTALL 5 IN. WHITE HEAT APPLIED PERMANENT
		THERMOPLASTIC PAVEMENT MARKING
8011	26 EA	FURNISH AND INSTALL 12 IN. VEHICULAR SIGNAL HEAD SECTION
8013	2 EA	FURNISH AND INSTALL 15 FT. STREET LIGHTING ARM FOR SIGNAL
		POLE
8014	2 EA	FURNISH AND INSTALL 250 WATT HPSV LUMINAIRE
8019	6 EA	FURNISH AND INSTALL 8 IN. VEHICULAR SIGNAL HEAD SECTION
8020	1 EA	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT
		FOR SIGNAL
8022	1 EA	FURNISH AND INSTALL 50 FT. MAST ARM AND
		POLE

EQUIPMENT LIST "B" CONTINUED

	ITEM NO.	QUANTITY	DESCRIPTION
	8033	1 EA	FURNISH AND INSTALL 50 FT./50 FT. TWIN MAST ARMS AND POLE
	8043	4 EA	FURNISH AND INSTALL NON-EVASIVE MICRO-LOOP PROBE WITH 1000 FT. LEAD-IN
	8051	30 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
	8052	450 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
	8053	20 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
	8057	12 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
	8059	160 LF	FURNISH AND INSTALL 4 IN. X 6 IN. WOOD SUPPORT
	8060	230 LF	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER WIRE
	8062	40 LF	FURNISH AND INSTALL 1 IN. GALVANIZED CONDUIT DETECTOR WIRE SLEEV
	8068	10 LF	FURNISH AND INSTALL 1 IN. LIQUID TIGHT, FLEXIBLE, NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
	8070	50 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO.4 AWG
	8072	12 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
	8080	3 EA	FURNISH AND INSTALL GROUND ROD 3/4 IN. DIAMETER X 10 FT. LENGTH
	8081	340 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR ALUMINUM SHIELDED
	8084	70 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR NO. 14 AWG
	8085	960 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR
	8086	420 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR NO. 12 AWG
	8087	2300 LF	FURNISH AND INSTALL LOOP WIRE ENCASED IN 1/4 IN. FLEXIBLE TUBING (NO. 14 AWG)
	8808	600 LF	FURNISH AND INSTALL SAW CUT FOR LOOP DETECTOR
	8091	920 LF	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
	8093	1 EA	FURNISH AND INSTALL CONTROLLER AND CABINET BASE MOUNT
		3 EA	FURNISH AND INSTALL 4-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
		1 EA	FURNISH AND INSTALL R10-12 SIGN (36" X 42") MAST ARM MOUNT
		1 EA	FURNISH AND INSTALL R10-12(MOD.) SIGN (36" X 42") MAST ARM MOUNT
		2 EA	FURNISH AND INSTALL D3-2 SIGN "SHINING WILLOW WAY" SINGLE FACE (VAR. X 16") MAST ARM MOUNT
		1 EA	FURNISH AND INSTALL SHIELD ASSEMBLY M3-1 (12" X 24"), M1-4 (24" X 24"), M6-1 (24" X 30") MAST ARM POLE MOUNT
		2 EA	FURNISH AND INSTALL R3-5(L) SIGN (30" X 36") MAST ARM MOUNT
-		4 EA :	FURNISH AND INSTALL W3-3 SIGN (48" X 48") WITH "NEW" PANEL (30" X 30") WITH FLAGS GROUND MOUNT
		1 EA	FURNISH AND INSTALL SHIELD ASSEMBLY M3-3 (12" X 24"), M1-4 (24" X 24"), M6-1 (24" X 30") MAST ARM POLE MOUNT
		2 EA	RELOCATE EXISTING GROUND MOUNTED SIGN

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.

QUANTITY

DESCRIPTION

NONE

ALL SIGNAL EQUIPMENT TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR

CONCEPTS NC. 325 Gambrills Road Suite E Gambrills, MD 21054 (410) 923-7101

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety

TRAFFIC ENGINEERING DESIGN DIVISION GENERAL INFORMATION

US 301 AT SHINING WILLOW WAY

DRAWN BY: M.HOWELL CHECKED BY: T.ZAYDEL	/ %3 F.A.P. NO	TS NO. 4214	SHEET NO.
SCALE: NONE	COUNTY: CHARL	ES T.I.M.S. NO.	
DATE: 10-4-02	LOG MILE:	F-393	2 OF 2